

**Remarks**

Claims 1 and 3-6 are pending.

**Claim Rejections -- 35 U.S.C. 101**

Applicant thanks the Patent Office for withdrawing the rejection of claims 1 and 3-6 under 35 U.S.C. 101 as directed to non-statutory subject matter.

**Claim Rejection -- 35 U.S.C. 112, First and Second Paragraphs**

Applicant also thanks the Patent Office for the withdrawal of the rejection of claims 1 and 3-6 for failing to comply with the written description requirement.

In addition, applicant thanks the Patent Office for withdrawing the indefiniteness rejection of claims 1 and 3-6 under 35 USC 112, Second Paragraph.

**Claim Rejections -- 35 U.S.C. 102(b)**

I. Applicant thanks the Patent Office for withdrawing the anticipatory rejection of claims 1 and 3-6 over Wainwright (*Medical Hypotheses*, vol. 60, pp. 290-292, Feb. 2003).

II. Applicant respectfully traverses the anticipatory rejection of claims 1 and 3-6 over Robinson (IDS REF 6; 2001).

By ‘IDS REF 6: 2001’, the Office Action apparently was referring to the 6<sup>th</sup> reference published in year 2001 and cited in an IDS. There was an IDS received by the Patent Office on September 21, 2006, in which the 6<sup>th</sup> reference cited was: ROBINSON D. H., An oxygen-related bioprocess drives eukaryote-to-prokaryote genome evolution and speciation, DeNOVO BIOLOGIC LLC, 2001. Thus, ‘IDS REF 6: 2001’ refers to this Robinson paper published in 2001.

The Office Action asserts that Robinson (IDS REF 6; 2001) anticipates claims 1 and 3-6. However, a careful reading of the reasons of the anticipatory rejection shows that

the Examiner actually was not relying on ROBINSON D. H., An oxygen-related bioprocess drives eukaryote-to-prokaryote genome evolution and speciation, DeNOVO BIOLOGIC LLC, 2001. Instead, the Examiner was relying on Robinson, Medical Hypothesis (2005) 64, 177-185, for the anticipatory rejection. This is because the Office Action alleged that “IDS REF 6; 2001” discloses:

(a) “Observing that several bacterial isolates appeared to **self organize in vitro**, one identified as the Gram-positive facultative anaerobe *Staphylococcus epidermidis* and designated as MH, was selected from a study of its morphogenetic properties. (Emphasis added).” In page 178;

(b) “The multicellular self-organization in vitro of MH [*Staphylococcus epidermidis*] into *tissue like sheets and capillary like networks* shows similarities to morphogenetic patterns observed in in vitro models of mammalian vascular network formation. (See page 179)”;

(c) “Figure 1 shows MH [*Staphylococcus epidermidis*] organizing into multicellular tissue like sheets that contain numerous lacunae [bone]. (See page 178).; and

(d) ‘Robinson disclose of “some polygonal areas circumscribed by irregularly tessellated bacterial network.” (See page 179)’

However, it should be noted that “ROBINSON D. H., An oxygen-related bioprocess drives eukaryote-to-prokaryote genome evolution and speciation, DeNOVO BIOLOGIC LLC, 2001” does not have pages 178 and 179, and does not disclose the subject matters of items (a) to (d) above. By quoting passages from pages 178 and 179 of IDS REF 6; 2011, it is clear that the Examiner was actually relying on Robinson, Medical Hypothesis (2005) 64, 177-185, for the anticipatory rejection. Because Robinson, Medical Hypothesis (2005) 64, 177-185 is not prior art, applicant emphasizes that it should NOT be used for the anticipatory rejection. The anticipatory rejection should be withdrawn. As a result, applicant disagrees that Robinson (IDS REF 6; 2001) anticipates claims 1 and 3-6.

In the event that the filing of this Response is not timely, applicant petitions for an appropriate extension of time. The Examiner is invited to contact the undersigned at (202) 220-4200 to discuss any matter concerning this application. The Office is authorized to charge any fees related to this communication to Deposit Account No. 11-0600.

Respectfully submitted,

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